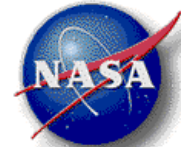




Alpha Magnetic
Spectrometer NASA / DOE

Open Paper Management Tool Open Items Report



National Aeronautics and
Space Administration

Friday, September 21, 2007

Open Action Items Report

Open Item Number: 05-042

RID Open Date: 9/14/2005

Title: Helium Venting Hazard Analysis

Initiator(s):

Description: Provide hazard analysis for venting of helium from the main tank.

Action Item Information

Actionee(s): Chris Tutt/ESCG

Action Due Date: 4/1/2007

Action: Take existing hazard analysis of helium venting presented to NASA and create stand-alone report for delivery to ESTEC.

Action Status: 8/24/2007 - Venting analysis confirms that directed vents will be needed for SSPF - analysis for ESTEC will be done next.

8/9/2007 - Collaboration between SM and ESCG more clearly defined in telecon - answers should be available soon to support GOWG and ESTEC.

11/20/06 - Date rolled to April 1st to better reflect need. Meeting at ESTEC planned for late April.

8/14/06 - Date rolled to September 1st.

6/5/06 - Necessary information received from SCL. In-work, C. Tutt.

3/30/2006 - Date changed again as analyst is not becoming any faster.

3/6/2006 - Date changed to 4/1 to account for slothful analyst.

11/14/2006 - Date changed to 3/1 to better reflect analyst workloads.

Open Action Items Report

Open Item Number: 05-043

RID Open Date: 9/14/2005

Title: Helium Venting Hazard Analysis

Intiator(s):

Description: Provide hazard analysis for venting of helium from the main tank.

Action Item Information

Actionee(s): Gaetan Piret/ESTEC

Action Due Date: 5/1/2007

Action: Upon delivery of hazard analysis described in 05-042, evaluate potential hazards to EMI and TV test chambers.

Action Status: 11/20/06 - Date rolled to May 1st to roll with 05-042.

8/14/06 - Date rolled to October 1st.

4/10/06 - Due date changed to 6/1/06 allow time after completion of 05-042.

11/12/2005 - Date changed to 4/1/2006 to match item 05-042.

Open Action Items Report

Open Item Number: 05-074

RID Open Date: 10/28/2005

Title: CGSE Support at Pad

Intiator(s): Trent Martin

Description: *It is not clear how the cryogenic GSE, particularly the piping, will be supported at the pad.*

Action Item Information

Actionee(s): Robert Becker/MIT, Alexander Gretchko/MIT

Action Due Date: 6/1/2007

Action: *Provide details on how the GSE will be supported at the pad.*

Action Status: *6/4/2007 - Ken Bollweg and Mike Capell to work with Alexander Grechko to resolve file transfer problems.*

2/5/2007 - Date rolled to 6/1/07.

11/27/06 - J. Keiffenheim reports that space is available for hanging plumbing, and KSC can design, manufacture hanging hardware. Still have concerns regarding fill port plumbing suspension, so will keep open.

10/16/06 - Date rolled to 11/15 after Cryo GSE meeting at KSC.

6/26/2006 - Date rolled to October 15th after Magnet Processing meeting at KSC.

5/15/2006 - Further discussion on handling of CGSE after PLBD close prelaunch is required.

3/24/2006 - Trent Martin to forward all data provided by KSC to Art Nelson for inclusion in ground safety package.

2/14/2006 - Alexander Gretchko waiting on information from KSC - Trent Martin to coordinate.

Open Action Items Report

Open Item Number: 05-105

RID Open Date: 2/23/2007

Title: Autoignition Safety Hazard

Intiator(s): C. Tutt

Description: CGS LTA thermal analysis should contain information to close autoignition safety hazard.

Action Item Information

Actionee(s): C. Clark

Action Due Date: 2/26/2007

Action: Review CGS LTA thermal analysis to determine if sufficient data to close the autoignition safety hazard.

Action Status: 9/17/2007 - Volker confirms no change in power distribution from previous design.
8/9/2007 - System under redesign - Tim/Craig to pulse Mike Capell for status.
4/5/2007 - More details needed on baroswitch electronics. Tim Urban to work with Volker Commichau and Mike Capell.
3/26/2007 - Autoignition temperatures do not seem to be a problem, but Craig Clark and Tim Urban working to clarify what parts of CAB will be powered during ascent.

Open Action Items Report

Open Item Number: 07-002

RID Open Date: 6/5/2007

Title: Venting Data Summary

Intiator(s): Chris Tutt

Description: Safety analysis requires assessing all hardware for venting loads.

Action Item Information

Actionee(s): Chris Tutt

Action Due Date: 7/1/2007

Action: Collect venting data for all items and write cover memo suitable for closing safety verification.

Action Status: 9/13/2007 - Stress analysis of USS-02 beams for venting loads under review by stress group.
8/24/2007 - All additional analysis done with no issues found. Draft memo written and under review.

Open Action Items Report

Open Item Number: 07-003

RID Open Date: 6/14/2007

Title: *DDRS Drawings Status*

Initiator(s): *Chris Tutt*

Description: *DDRS drawings are required to close out several items on the interior Form 1230.*

Action Item Information

Actionee(s): *Tim Urban/ESCG*

Action Due Date: 9/10/2007

Action: *Provide released drawings of the DDRS.*

Action Status: *6/15/2007 - Tim Urban to get current status of DDRS drawings and provide schedule estimate for their completion.*

Open Action Items Report

Open Item Number: 07-004

RID Open Date: 6/14/2007

Title: *DDRS EMI Assessment*

Intiator(s): *Chris Tutt*

Description: *DDRS must meet one of four requirements called out on line 8 of Form 1230.*

Action Item Information

Actionee(s): *Tim Urban*

Action Due Date: 9/10/2007

Action: *DDRS must be shown to meet EMI requirements.*

Action Status: *6/15/2007 - Tim Urban to determine which of the four requirements is applicable for DDRS and provide ECD for resolution.*

Open Action Items Report

Open Item Number: 07-005

RID Open Date: 6/14/2007

Title: DDRS Thermal Analysis

Initiator(s): Chris Tutt

Description: DDRS must be shown to meet touch temperature requirements in Form 1230 Row 10.

Action Item Information

Actionee(s): Tim Urban/ESCG, Craig Clark/ESCG

Action Due Date: 9/10/2007

Action: Perform sufficient analysis or review to demonstrate that PGSC/NGLS will not see excessive thermal load.

Action Status: 6/15/2007 - Tim Urban, Craig Clark, and Leland Hill to determine what assessment is required to close SVM and provide ECD.

Open Action Items Report

Open Item Number: 07-008

RID Open Date: 6/14/2007

Title: *DDRS Rapid Safing*

Intiator(s): Chris Tutt

Description: *DDRS must meet rapid safing requirements described in MA2-96-190.*

Action Item Information

Actionee(s): Tim Urban/ESCG

Action Due Date: 9/10/2007

Action: *Gain concurrence from NASA that DDRS meets rapid safing requirements.*

Action Status: *6/15/2007 - Tim Urban to investigate who approves IVA rapid safing and find out what they want to see to close issue.*

Open Action Items Report

Open Item Number: 07-011

RID Open Date: 6/20/2007

Title: TAS Design Review

Intiator(s): Chris Tutt

Description: Several safety verifications require review of the TAS system design. These must be documented in a formal memo for closure of the associated SVMs.

Action Item Information

Actionee(s): Chris Tutt

Action Due Date: 7/2/2007

Action: Review TAS drawings and installation procedures to confirm that assumptions used in the laser safety analysis are correct.

Action Status: 9/21/2007 - Data received from Franck does not entirely answer question - awaiting arrival of TAS system at CERN for pre-integration.
8/17/2007 - Data received from Wolfgang - awaiting additional data from Franck Cadoux. Draft memo written.
7/6/2007 - Basic review complete - some questions have been sent to Wolfgang for final closure.
6/20/2007 - Review TAS Phase II submissions to determine whether all drawings are available and confirm with Wolfgang that they remain the current design.

Open Action Items Report

Open Item Number: 07-012

RID Open Date: 7/31/2007

Title: Joint Gapping Margins

Intiator(s): Chris Tutt

Description: PRSP has not accepted SWG's acceptance of joint gapping margins as sufficient closure rationale.

Action Item Information

Actionee(s): Chris Tutt/ESCG

Action Due Date: 8/20/2007

Action: Prepare summary memo describing specific margins in questions, the analyses that led to those margins, and rationale why they do not present a safety hazard for re-presentation to SWG and PSRP.

Action Status: 9/21/2007 - TIM to discuss this issue scheduled for 10 October.

8/27/2007 - Preliminary review of gapping issues with safety engineers revealed no major issues. Ray Rehm and Richard Guidry to meet with Mary Beth Schwartz and try to resolve issue.

Open Action Items Report

Open Item Number: 07-013

RID Open Date: 7/31/2007

Title: Burst Disk Status

Intiator(s): Chris Tutt

Description: EP does not accept current cryomagnet burst disk design.

Action Item Information

Actionee(s): Chris Tutt/ESCG

Action Due Date: 8/20/2007

Action: Upon receipt of Bill Manha's latest set of questions, determine if existing memo covers the answers in sufficient detail. If not, update memo and submit to EP as official response.

Action Status: 9/21/2007 - TIM to discuss this issue scheduled for 10 October.
9/17/2007 - Formal memo released to PSRP pending upcoming safety TIM.
8/27/2007 - Meeting with Bill Manha seems to have resolved all concerns. Formal memo documenting APO's assessment will be reviewed and released.
8/24/2007 - PSRP confirms that EP will not be sending new comments - Bill's original comments are now official. Preliminary response prepared for TIM.
8/9/2007 - Awaiting official response from EP. Leland to pulse Ray Rehm/NT for status.

Open Action Items Report

Open Item Number: 07-016

RID Open Date: 7/31/2007

Title: Static Test Approval

Initiator(s): Chris Tutt

Description: SWG is withholding approval of the AMS-02 Static Test

Action Item Information

Actionee(s): Chris Tutt/ESCG, Carl Lauritzen/ESCG

Action Due Date: 9/1/2007

Action: Meet with SWG to review memo describing static test design principles and determine what additional information, if any, is needed for their approval.

Action Status: 8/17/2007 - Meeting held on 8/15/2007. Basic static test design concept accepted by SWG, but Paul Romine to review detailed writeup and issue final approval.
8/9/2007 - Chris Tutt to pulse Lance Mushung and Paul Romine for status.

Open Action Items Report

Open Item Number: AMS_02-CDR-06

RID Open Date: 5/1/2003

Title: AMS-CDR-1-17: Meteoroid/Orbital Debris Shielding

Intiator(s): E. Christiansen/NASA

Description: *Shielding from meteoroid/debris impact is inadequate to meet protection requirements. Shielding of pressurized vessels on AMS-02 such as the vacuum case and TRD (as well as any other pressure vessel) is required to prevent catastrophic rupture of these tanks in the event of meteoroid/debris impact which would release high-velocity fragments creating a potentially serious safety issue for on-board crew. The assessed probability of no penetration (PNP) using specified environment models is 0.97 which is far below the specified 0.997 PNP requirement. Updating ballistic limit equations and models as described in the forward work plan does not appear adequate to show compliance with requirements. Additional or significantly enhanced shielding will likely be necessary to meet safety requirements.*

Action Item Information

Actionee(s): Dana Lear/ESCG

Action Due Date: 8/15/2006

Action: *Complete analysis and coordinate design of debris shields. To be completed by Phase III Safety.*

Action Status: *8/24/2007 - Action to focus on getting requirement clarified. Eric Christiansen made presentation last week to PSRP to consolidate requirements.*

6/4/2007 - Chris Tutt and Trent Martin to meet with Eric Christiansen and Dana Lear on Thursday to discuss plan forward. Mike Capell to send details on which electronics crates should be included in future assessments.

10/16/06 - Trent pressed Eric Christiansen - action to Ross to work with D. Lear to update model.

6/26/2006 - R. Harold to work with Will Minter on model updates. Will is available until end of August.

05/03/05 - The AMS-02 modeling for the MMOD assessment was completed last week. Additionally, the BUMPER geometry runs have been completed. Dana Lear verifying/updating all inputs for both the shield ballistic response definitions (BLEs) and the mission parameters.

Open Action Items Report

Open Item Number: AMS_02-PDS_CDR-06

RID Open Date: 4/18/2005

Title:

Initiator(s): Tim Urban

Description:

Action Item Information

Actionee(s): Marco Molina

Action Due Date: 12/1/2007

Action: Re-evaluate thermal optical properties on the top of the PDS as there are no longer heaters located there (breakdown of MLI vs. white paint). QM & FM different ?

Action Status: 3/26/2007 - Work has restarted - ECD on this question 4/15.
2/5/2007 - ASI budget approved; some movement on contract. Dates rolled to 3/5/07.
8/28/06 - Contract still in work. Work-around by using EM for initial testing. Roll date to 10/5.
7/7/06 - Investigate contract status at July TIM.
5/08/2006 - Contract to be in place by June; roll date to 7/1/06
4/10/06 - On-hold pending resolution of ETH/CGS contract.
8/2/2005 - Awaiting thermal analysis of revised worst hot case.

Open Action Items Report

Open Item Number: AMS_02-PDS_CDR-08

RID Open Date: 4/18/2005

Title:

Intiator(s): Tim Urban

Description:

Action Item Information

Actionee(s): S. Alia

Action Due Date: 12/1/2007

Action: Add 0.03 μ F per 3.2.2.2.2.A of SSP 57003, and add verification by design inspection or test.

Action Status: 3/26/2007 - Updated reports to be released at PDS MRR in December.
2/5/2007 - ASI budget approved; some movement on contract. Dates rolled to 3/5/07.
8/28/06 - Contract still in work. Work-around by using EM for initial testing. Roll date to 10/5.
5/08/2006 - Contract to be in place by June; roll date to 7/1/06
4/10/06 - On-hold pending resolution of ETH/CGS contract.
11/7/2005 - All further PDS activities on hold until 6 Feb 2006.
8/22/2005 - CGS proposes release of updated document by 9/19.
8/15/2005 - Tim Urban to contact Sergio Alia and resolve remaining concerns. Closure expected by 9/5.

Open Action Items Report

Open Item Number: AMS_02-PDS_CDR-09-2

RID Open Date: 4/18/2005

Title:

Initiator(s): Tim Urban

Description:

Action Item Information

Actionee(s): S. Alia

Action Due Date: 12/1/2007

Action: Update document for maximum operating temperature of 51°C (Section 3.2, requirement ID PDS-ENV-3).

Action Status: 2/5/2007 - ASI budget approved; some movement on contract. Dates rolled to 3/5/07.
8/28/06 - Contract still in work. Work-around by using EM for initial testing. Roll date to 10/5.
5/08/2006 - Contract to be in place by June; roll date to 7/1/06
4/10/06 - On-hold pending resolution of ETH/CGS contract.
11/7/2005 - All further PDS activities on hold until 6 Feb 2006.
8/22/2005 - CGS proposes release of updated document by 9/19.
8/2/2005 - MOT should be changed to match updated worst case hot temperature.